


6-1

Concentration in Agribusiness and Marketing: A Case Study of Arla Foods

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Executive Summary

The modern food industry is characterized by fewer and fewer firms and the emergence of some powerful international and global players. This case study of Arla Foods details that firm's development from its origins in local dairy cooperatives to its current position as a multinational food conglomerate. Its development has attracted scrutiny from competition authorities for a variety of reasons, and it raises questions about the role of farmer cooperatives locally, nationally, and internationally.

Some technical terms are examined in support of the case study: consolidation, concentration, and market power are often used interchangeably, but from an economic and policy perspective they are quite different and have a variety of origins. The case study also outlines some current policy concerns about horizontal and vertical relationships in food marketing chains. Arla exhibits a range of vertical and horizontal relationships with various sets of stakeholders, and their actual and potential interests are described and discussed in policy terms. Arla dominates its supply of raw material (milk), but its status as a cooperative would be expected to protect its farmer-suppliers. As Arla's influence has crossed borders through exports and collaboration with other firms in processing and distribution, other farmers may suffer, along with the dairy-processing firms to which they sell. As for other food processors, Arla faces powerful trading partners among Europe's retailers that have themselves attracted attention from policy makers.

In identifying and evaluating policy options, economists face a number of challenges, including variable definitions (of, for example, markets and products), difficulties in empirical measurement (particularly of market power), and modeling practices. Economic interests have shifted over time, and a "channel" orientation has developed in some food industries, changing the practices food industry firms use within those channels. Many such developments are difficult for policy to address, and this issue has relevance for Arla Foods.

Your assignment is to suggest policy recommendations for the various levels of government (local Danish and British governments, national Danish and Swedish governments, and the European Commission) regarding the future of Arla Foods

and other large agribusiness firms. You will need to assess the extent of market power exercised by Arla and decide which stakeholders are likely to be affected by Arla's exercise of market power and in which ways.

Background

The number of food industry firms has declined across most commodity sectors and in most countries of the world. This decline has been widely associated with a presumed increase in the market power of the largest firms and with the abuse of that power. Owing to the public sentiments associated with such issues as the pursuit of profit, the price and availability of food, rural and village life, and farm incomes, market power in the food industry has been of considerable concern to policy makers. The connection between structural change in the food industry and the possible development and abuse of market power is, however, complex. This case study examines the forces at work, their potential impacts, and policy responses to them. Arla Foods is a Scandinavian food industry firm that has passed through various stages of growth to enjoy near monopoly-monopsony status and attracted the attention of the evolving regulatory environment in Scandinavia and Europe.

Consolidation and Concentration

In many countries the number of food industry firms has declined and the average size of firms has increased in a process known as consolidation (Baker 2003; Traill and Gilpin 1994; USDA 2002). As consolidation has proceeded, a few firms have increased market share more than the remaining firms through the process of concentration (Rogers 2001). Economists' assumption of many small, price-taking firms might be maintained in the presence of some consolidation, as firms become somewhat larger but each still has an equal and negligible influence in the market. Concentration, however, delivers a small subset of very large firms with the potential to exert greater influence over prices and trading conditions than their smaller counterparts. Concentration has been shown to occur in both input markets and product markets and at all stages of the food marketing chain.

“Concentration” is sometimes used interchangeably with “market power,” whereas in fact neither term implies the other.

Theoretical and Empirical Issues

On the surface, measurement of consolidation may appear straightforward in that it entails tracking numbers of firms, whereas measurement of concentration seems more challenging because market shares must be derived. In fact, measurement of both can be difficult for both product markets and for the often overlooked markets within which inputs are purchased. The first measurement problem concerns product and market definition: large firms tend to purchase, produce, and sell many different products in a variety of forms, formats, and quality levels. The emerging dominance of non-specialized retail formats (Stensrud 1999) has exacerbated this problem. A second problem confronts markets with significant volumes of international trade: calculating and interpreting a firm’s domestic market share is complex if the firm sells in foreign markets or if the domestic market features many products produced by foreign firms. The third measurement problem involves interactions between products: a concentrated market for one product can have significant implications for related products that involve the same, or different, firms.

A fourth measurement problem is the identification of products within firms, and firms within markets. In the former case, vertical integration has the effect of reducing marketing volumes because at one or more points in the marketing chain products are not traded but retained within a single firm. In the latter case, associations between small firms may mimic the market power–related aspects of large firms, although the firms themselves each trade small volumes. A familiar example is the farmer cooperative, but equally significant is the agglomeration of retailers and/or wholesalers into “buyer groups” for the purposes of negotiations with suppliers (UK Competition Commission 2000). Finally, empirical measures of consolidation and concentration have almost always been used and interpreted with regard to product markets. These two processes are equally important, however, and perhaps even more influential, in input markets.

Misuse of market power is grounded in firms’ restricting traded quantities in order to raise sales prices or reduce purchase prices. This understanding emerges from economic theory of monopoly and oligopoly and is at the core of a set of empirical techniques that seek to detect the influence of large firms’ decisions and actions on the market. These techniques include direct approaches such as measuring or inferring differences between price and marginal cost ($P = MC$ in perfect competition) and finding a statistical association between market volumes and price that otherwise violates the competitive model. More crudely, measures of profit (or proxy measures) have been statistically associated with market volumes and specific known cost items. Less direct approaches involve observation of prices at different points in the food marketing chain over time and examination of the timing and extent of the transmission of price changes between stages. Observations of series of prices and market volumes have also been used in game theoretic models. Most of these methods seek to detect market power and its misuse at the market level rather than say anything about the actions of the individual firm.

The Forces at Work

Technology. Consolidation is likely to be partly attributable to technological change, both internal and external to the firm. Economies of scale often apply in cases of large investment items within the firm, like high-technology processing systems, information technology (particularly those that are bar code–based), packaging systems, logistics, and brand-based marketing. Economies of scale also apply to non–investment-related items such as promotion and market research. Technological forces external to the firm include the availability of reduced transport costs and rapid advances in information technologies.

Policy has also interacted with technology in the food industry. Regulation of food safety, environmental actions, and product labeling are likely to favor larger firms because they are better able to exercise economies of scale (Siebert et al. 2000). These influences have increased market areas and reduced large firms’ unit costs relative to those of small firms. Many such advantages apply first and foremost at the firm level, rather than at the level of the individual shop, processing plant, or warehouse, thus providing the incentives for the

formation of chains without necessarily reducing the numbers of establishments (Marsden et al. 1998).

Consumer Habits. At the retail level, consumer shopping habits have changed to reflect changing lifestyles and income, as well as transport availability and changing dietary preferences (Kinsey and Senauer 1996). Changing consumer habits have invoked changes in both the format and degree of specialization of shops. In many countries specialized shops have given way to nonspecialized stores, and mall-type retail clusters have appeared. With the growth in the importance of non-specialized shops, the measurement of retail-level variables such as concentration, costs, and profits has become impossible for researchers and regulatory authorities.

Demand for information by consumers has led to substantial pressure on food industry firms to create systems and services that can measure, process, and deliver information to the consumer. Labeling and test certification address the content of foods, and identity preservation ("traceability") and process certification address the path taken by the product. In both cases, it is likely that large firms with large volumes can better serve the customer than their smaller competitors.

Channel Development. Consolidation and concentration have fostered linkages downstream toward retailers and upstream toward farmers so that a smaller number of channels to the consumer are available. The emergence of channels has led to new practices between agents in the food marketing chain, particularly long-term contracts featuring rigorous application of privately specified standards (Hughes 2002). In the context of market power, channel practices may favor the emergence of "chain captains" (Connor 2003) who, although they are active at just one stage of the chain, manage to control, and possibly exploit, agents at all stages of the chain. The predisposing conditions for channel captaincy have been referred to as "food convergence" (Cotterill 1997) and have been recognized in two forms, both of which are associated with the modern use of marketing techniques that feature brands:

- The "U.S. model" of food convergence features food processors as chain captains. Market power is exercised by supply of

globally or nationally well-known brands without which no supermarket can operate.

- The "British model" emphasizes retail power, exercised by restricted access to supermarket shelf space, downward pressure on prices paid to suppliers, and the use of retailers' own-label brands in competition with processors' brands.

The implications of food convergence generally arise from the smaller number of market participants and their close vertical linkages in the food chain. Such linkages allow not only for supply contracts, but also for provision of large amounts of information. This situation enables traceability and differentiation of products according to issues such as animal housing conditions or crops' pesticide history, and for specification of features such as packaging and timing for delivery.

Mergers. Mergers and acquisitions, which occur as firms that have increased their market share are purchased and combined with other "winning" firms, have acted as driving forces in food industry consolidation. Wrigley (2001) notes that merger activity increased among food retailers in Britain in the 1980s and 1990s and followed in the United States in the late 1990s. Wrigley (1997) rejects the concept of separate British and U.S. models of food convergence. Instead, he identifies several factors determining the intercontinental difference, particularly the policy environment, the availability of venture capital, applications in information technologies, and the entry of Wal-Mart into food retailing. Several commentators have noted the increasing number of cross-border mergers in the food industry [see, for example, UK Competition Commission 2000], and this phenomenon is reflected in this case study of Arla.

Vertical Integration. Vertical integration in the food industry has been examined in many contexts—specifically, farming and processing, processing and distribution, distribution and retailing, and processing and retailing. Reasons behind vertical integration include overcoming difficulties in acquiring and processing information (Hennessy 1996), reducing the cost or awkwardness of transactions (Azzam 1996), and enhancing the compatibility of technologies and scale between

upstream and downstream stages of the food marketing chain.

Social Change. At the farm level, reduced numbers of farms and increases in farm size have been accompanied by greater and more widespread specialization and an increasing tendency for farmers to be employed off the farm (Brouwer and Bijman 2001). In general, consolidation of farms has not been viewed as a competition-related issue. In some commodity sectors, however, contracting and other transaction mechanisms have been used to effect significant local concentration and raise concerns about market access. In Western economies, pork and poultry production provide examples. In an African and Latin American context, contract production of flowers and vegetables for multinational food industry firms has also been criticized for dominating and marginalizing traditional producers.

Urban Location. Location of establishments has played a role, as the growth in the size of retail stores and processing plants has meant that an increasing number of locations are capable of sustaining just one establishment. Indeed, control of potential sites for retail food stores outside British towns has itself become the subject of anti-monopoly action (UK Competition Commission 2000).

Innovation. Innovation is thought to be related to market concentration, although opinions vary about the nature of the relationship. According to some researchers and theorists, perfectly competitive markets would not offer sufficient returns to firms to justify the costs incurred in innovation (Braadland 2000). This view particularly refers to new product development in the context of price-taking firms. The alternative view is that a monopoly provides no incentive for innovation owing to lack of competition (Harris 2002). Product differentiation and new product development are apparent on the supermarket shelves, although the extent to which this innovation is greater or less than it would be in a non-concentrated food industry has not been adequately researched.

Manifestations of Market Power

Economists' approach to market power in the food industry has traditionally focused on the impact of

monopoly actions on the consumer. Real food prices paid by consumers have continued to fall in most developed markets, however, and little evidence of monopoly-related welfare loss to consumers has appeared (Hyde and Perloff 1998; Kinsey 2003; Park and Weliwheta 1996). A more recent focus has been on the body of the food chain, particularly the transactions between processors, distributors, and retailers.

Retail Behavior. Retailers' behavior toward suppliers has attracted considerable recent attention. A variety of tests have been employed for monopsony action whereby retailers limit the volume they demand to drive prices downward. Economic modeling centered on methods developed in the "new empirical industrial organization" approach has yielded tests for monopoly and monopsony simultaneously (for a review see Digal and Ahmadi-Esfahani 2002). As already noted, such studies employ market-level data and do not deal directly with single firms' conduct.

Specific actions by retailers toward suppliers have come under scrutiny in the context of retailers as "gatekeepers" owing to their apparent control of the interface between consumers and the rest of the food industry (UK Competition Commission 2000). There are many examples of such actions (see also McCorriston and Sheldon 1997; OECD 1999). Among other things, retailers

- pass on to suppliers the costs of new retail product introduction (such as initial advertising costs);
- demand payments from processors for access to supermarket shelf space (known as "slotting fees");
- price some basic products below cost to increase sales of complementary high-margin products ("loss-leading");
- require agreements with suppliers to be on an all-or-nothing basis across a range of products (so-called "de-listing threat");
- require compensation from suppliers for products' commercial failure;
- require suppliers to play technical roles (such as physical stocking of shelves);
- demand exclusive supply agreements; and
- require coordination with retailers' use of own-label brands.

Retailers' use of own-label brands is not generally thought of as a direct consequence of concentration, but it is clearly enabled by retailers' scale and their desire to add value in terms of shoppers' desire for convenience. The extent to which retailers exploit food-processing firms that supply their own-label brand products is not clear.

A key element of food retailers' strategies is their location within a catchment of customers. Several locational trends have been observed, including moves outside town centers and location within shopping malls, often in combination. Owing to the limited number of suitable ("greenfield") sites, retailers have the incentive to purchase or occupy as many sites as possible, not only to open a store, but also to prevent entry by a rival food retailer.

Processing. Most early studies of food processors' market power focused on the U.S. meat industry, particularly the measurement of the market power of processors and how they exercised it over retailers on the one hand (for example, Morrison 2001) and feedlot owners on the other (for example, Schroeter and Azzam 1990).

According to the "food convergence" line of reasoning, food processors' must-stock brands are supplied to retailers under monopoly conditions. The most obvious abuse of this position would be restriction of supply to drive up wholesale prices. A range of other practices has been proposed, however, including "tying" of must-stock brands to other products the processor sells and exclusivity arrangements.

Logistics and distribution have also been employed in exercising market power. In some cases processors have supplied bulk containers, chillers and freezers, and display cases to retailers with the requirement that retailers use these items to handle, store, or display only that processor's products.

Researchers have examined the subject of brands as an instrument of market power in some depth and detail for the case of breakfast cereals in the United States. Connor (1999) observes that the industry supplying such products is highly concentrated, and the few firms in the market own a very large number of brands. Connor argues that this situation is anti-competitive because it raises barriers to entry, as potential new entrants face incumbent

brands at all sites within the "product space" despite the non-profitability of most of those incumbent brands.

Processors' relations with retailers clearly vary from product to product. In the case of retail beer in Britain, firms in the highly concentrated brewing industry own a large proportion of the pubs. These pubs are commonly leased to agents under a set of arrangements that have been criticized for their pricing practices, exclusivity of product supply and tying, and constraints on lessees' management freedom (UK Monopolies and Mergers Commission 1989).

The concept of exploitation of farmers by monopsonistic food processors and buyers is an old theme. Collusive arrangements have been portrayed as the main instrument of placing downward pressure on the prices received by farmers. Other potential instruments include

- processor control of key inputs (like water, transport, credit, seeds);
- tying of input supply to purchase of products; and
- requirement for purchase of high-investment items on the farm (such as pipe sizes for milk collection that are not compatible with rival buyers' equipment).

Farmer Cooperatives. One of the main justifications for farmer cooperation is the accumulation of countervailing market power against the potential monopsonistic actions of processors and other buyers at the farm gate. The essential nature of a cooperative is a consolidation of product (or input, or service) from many farmer-members. The exclusion of nonmember suppliers and the requirement that members sell exclusively to the cooperative has been interpreted in some contexts as anticompetitive.

In the meat and dairy industries, many processors are vertically integrated farmer cooperatives. These cooperatives operate as large food processors and employ the full range of sophisticated processing and marketing techniques. In recent decades the trend in most countries has been toward consolidation of cooperatives. In some cases single cooperatives now approach 100 percent shares in milk and livestock purchases, perhaps spanning more than

one country. Aside from concerns about monopoly and monopsony behavior, such concentration presents a barrier to entry by other firms. Many of these concerns have been raised with regard to Arla Foods.

Single Seller Desks. In some countries national-level agencies have been assigned a state-authorized monopoly in marketing export products. The objective is usually related to farm income, but the procedure faces criticism from some circles as a market distortion. The argument runs that the monopsony and monopoly status of these agencies removes their incentive to supply products into differentiated markets. Obviously, the most strident opposition to single selling desks comes from independent traders that are excluded from the market.

Input Suppliers. Suppliers of farm inputs, animal feeds, and feed and food ingredients often operate in highly concentrated industries. The extent to which they exercise monopoly power over their customers has not been studied in detail, but this concern lies at the heart of concerns over patenting and other intellectual property attached to products or components based on living organisms.

Case Study: Arla Foods

Arla Foods is a cooperative owned by 10,000 Danish and Swedish dairy farmers. Including its 84 subsidiaries (as of September 2005), it is Europe's second-largest dairy company, with milk purchases of 8.4 billion kilograms and DKK 46 billion sales in fiscal year 2004/05 (Arla Foods 2006a, b). It was formed in 2000 by the merger of two dairy cooperatives: MD Foods (Danish) and Arla (Swedish). The stated purpose of the merger was to match and counter the size of the large international retailing chains that were, and remain, its customer base. MD Foods had a long history of growth by merger with other cooperatives as far back as 1970 and including the 1999 merger with the then second-largest dairy cooperative, Kløver Mælk. Foreign acquisition was also a longstanding feature of MD's strategy, beginning with the purchase of Associated Fresh Foods (the United Kingdom's fifth-largest dairy company) in 1990. At the merger in 2000, MD Foods purchased 90 percent of all Danish cows' milk, and Arla, some 65 percent of Sweden's.

As a result of rising imports of cheaper German milk, Arla's share of the Danish liquid milk market fell from 89 percent in 2003 to 80 percent in 2006. It has been suggested that Arla's market share has also suffered owing to consumer reaction to recent legal action over its abuse of dominant market position (*Food and Drink Europe* 2006). Arla still holds a large market share in Denmark for most dairy products, including yogurt (75 percent), cheese (55 percent), and all organic dairy products (75 percent). The United Kingdom, however, is the group's biggest market, accounting for 33 percent of company sales, followed by Denmark (22 percent) and Sweden (19 percent). Arla's UK subsidiary (Arla Foods plc, formed in 2003 through a merger with Express Dairies) is that country's largest supplier of liquid milk. Outside Denmark, Sweden, and the United Kingdom, Arla Foods operates numerous subsidiaries, with production facilities in Argentina, Brazil, Poland, and Saudi Arabia and licensed production in Canada and the United States.

Arla Foods spans the full range of dairy products, including liquid milk (45 percent of turnover), cheese (25 percent), powder and preserved milk products (14 percent), and butter and spreads (11 percent). Strong brand names are employed, including Lurpak (originally Danish, but now the United Kingdom's leading butter brand), Rosenborg mold cheeses, Buko cream cheeses, and DANO full-fat powdered products (with substantial market share in Asian and Middle Eastern markets). Through a number of subsidiary companies, Arla markets fruit juices and other beverages, bacterial cultures, and food ingredients. In the United Kingdom, Arla Foods has a partnership with Fonterra (a New Zealand dairy company, also cooperative-based) for packaging and distribution of butter and other spreadables that uses Fonterra's Anchor brand. For import and distribution on the Chinese market, Arla Foods has a joint venture with Mengnui (China's leading dairy company). In addition to its branded product range, Arla produces retailers' own-label branded products.

Both Arla Foods and its predecessor entities faced scrutiny from Swedish competition authorities during the series of mergers that led to the current corporate arrangements (Danish Competition Authority 2000b; OECD 2004). The 1999 merger of MD Foods and Kløver Mælk was subject to the following requirements of the Danish Competition

Authority [Danish Competition Authority 1999, 2000a, 2004a, b]:

- Farmers' level of choice was to be enhanced by reducing the duration of the supply commitment and permitting farmers to supply up to 20 percent to other buyers.
- All competitors were to be permitted to purchase raw milk and cream from MD Foods, and the company was obliged to buy excess milk from other Danish dairies.
- MD Foods was required to divest itself of annual processing capacity of 180 million kilograms of milk (entailing sale of a specified subsidiary company to a Danish competitor).
- MD Foods was prohibited from real estate arrangements that restricted entry by prohibition of use of land or facilities in dairy processing.
- MD Foods was compelled to allow competitors' access to distribution facilities.

Notably, the conditions imposed on MD Foods were not backed up by specified penalties for noncompliance. The Danish Minister for Commerce and Industry imposed several restrictions on MD Foods and the new conglomerate Arla Foods but did not refer to case to European Union (EU) Competition Authorities [Danish Competition Authority 2000a]. The summary of the situation given by the Organization for Economic Cooperation and Development [OECD] was that Denmark lacked an appropriate legal framework to deal with the case [OECD 2004]. Although Swedish competition authorities had previously prevented Arla's mergers with other Swedish cooperatives [Eurofood 2000], they too gave an affirmative final judgment on the merger with MD Foods. The following strictures were imposed [Danish Competition Authority 2004a]:

- further MD Foods divestiture of processing capacity to competitors;
- Arla Foods' provision for competitors' access to Arla Foods' distribution system; and

- Arla Foods' commitment to selling or buying milk and cream to and from other dairies.

The merger between Arla Foods and Express Dairies was referred to the European Commission, which concluded that the merger did not threaten to create, or reinforce, a dominant market position with regard to raw milk. The merger was also dependent on a general meeting of Express Dairies' shareholders in April 2003. The European Commission referred the matter to the competition authorities in seven countries in which the merger may have threatened competition regarding processed dairy products [European Commission 2003]. The UK competition authorities concluded that there was no threat to the public interest, and the deal was approved by the United Kingdom's Office of Fair Trading. Notably, the UK regulator stated that the market power of retailers in the UK was sufficient to offset the effects of the merger [UK Competition Commission 2003].

In late 2006 Arla Foods acquired 30 percent of the Finnish dairy company Ingman Foods, with an option on the balance of shares. This action received approval from EU competition authorities [Arla Foods 2007].

In 2002 EU competition authorities approved a joint venture between Arla Foods' packaging subsidiary [Danapak], the Austrian Teich Aktiengesellschaft Partnership, and Danish Corona Packaging. This joint venture created one of Northern Europe's largest manufacturers of flexible packaging [Arla Foods 2002]. The European Commission concluded that because of the many end uses of flexible packaging (that is, not just for dairy products), there was no risk of emergence of a dominant position for the new firm [European Commission 2002].

In a Danish court decision of February 10, 2006, Arla Foods was fined DKK 5 million for abuse of a dominant position in fresh milk and fermented products under the Danish Competition Act of 2002 [Danish Competition Authority 2006a]. Arla had agreed to pay its (retailer) customer Metro to exclude the products of Arla's competitor Hirtshals Andelsmejeri. Although Arla denies any wrongdoing [Arla Foods 2006c], the court received evidence that Metro revoked its contract with Hirtshals in association with Arla's financial

contribution to Metro's 40th anniversary celebrations. This decision marked the first time a Danish court concluded that a company abused a dominant position. A later confidential settlement between the two firms was reached, involving a payment from Arla to Hirtshals (Arla Foods 2006d).

Until 2004 Arla Foods charged new dairy supplier-members an entry fee equal to 2 percent of the value (at basic price) of milk to be supplied. Three Danish dairy farmers brought this matter to the Danish court, alleging abuse of a dominant position. In August 2002 the Danish Competition Authority ruled that Arla Foods had abused its dominant position in procurement of Danish cows' milk, on the grounds that the fee exceeded fair compensation to Arla for the costs of admission. In November 2003 the Danish Competition Appeals Tribunal overturned the decision, finding that it had not contained sufficient description and analysis of the salient facts. Furthermore, the Appeals Tribunal stated that a high fee alone does not constitute evidence of abuse of a dominant position. The farmers took the case to the Danish High Court, which dismissed it in September 2006 (Danish Competition Authority 2006b).

In 2004 the Danish Competition Authority concluded that the series of mergers between, first, Kløver Mælk and MD Foods, and later MD Foods and Arla, had led to higher Danish milk prices than would otherwise have prevailed. The authority stated that under the current legal regime the mergers would probably not have been permitted (Danish Competition Authority 2004b, 284). Further concerns have arisen over Arla's market power as a supplier to retailers and as a distributor of other firms' products to retailers (Danish Competition Authority 2004b, Chapter 5), but in several instances Arla was found not to have abused its dominant position, particularly with regard to pricing and marketing support in dealing with retailers (Danish Competition Authority 2002).

Policy Issues

General Comments

The primary policy concerns provoked by concentration in the food industry are the protection, promotion, and preservation of competition. Most countries feature two forms of policy:

- antimonopoly policy targets firms' pricing and practices that exercise market power; and
- antitrust policy addresses relations among firms, to prevent or punish mergers and other forms of association that provide for the exercise of market power.

Increasing consolidation and concentration has led to a shift in policy interest away from monopoly and toward a balance of market power between stages of the marketing chain. This shift is not new: U.S. law has allowed farmers' collusive actions (such as in a cooperative) to enable "countervailing market power" (relative to that of the large food processors to whom the farmers sell) as far back as the Capper-Volstead Act of 1922. This vertically oriented interest in bilateral market power has recently extended to relationships between retailers and other stages of the food marketing chain.

Policy concern about access to markets, which is traditionally protected by antitrust policy that prohibits collusion and exclusivity agreements, has been transformed into concern over access to channels. Food convergence means that fewer channels are available to firms, and access to these channels is often predicated upon adherence to quality standards, information provision, or other actions by suppliers. A further complicating feature is that channel trade tends to be driven by contracts rather than interactions in a transparent market. This situation limits the extent to which policy agencies can monitor trading conditions.

To the extent that channel access and food convergence require and result in specialization on the farm, then concentration can be associated with farmers' risk management. The ageless risk-related practice of diversification must then be abandoned, and policy makers must ensure that alternative mechanisms are available.

Channel access requisites such as standards, product descriptions, food safety, information provision, certification, labor arrangements, animal welfare, and political (and even religious) commitments are to one degree or another parallel requirements to those of most governments. They are defined and imposed by private agents, however, which challenges traditional thinking about the role of government and private enterprise. Currently there are few indications of which, if any,

within-channel practices actually discourage entry or otherwise exclude entry by farmers on a non-competitive basis. While farmers that gain channel access can certainly benefit from it, they have the incentive to minimize the number of other farmers that benefit alongside them.

The gatekeeping role of retailers gives rise to several concerns. First, as the controllers of super-market shelf space, retailers effectively determine the range and form of products on sale. In addition, retailers' own-label brands compete for shelf space and in most countries have steadily accumulated market share. Consumer groups have raised concerns over the possible decline in product variety, specifically a reduced number of brands on sale and the disappearance of local or traditional brands from the market. That tendency is exacerbated by supermarkets' increasing sales of nonfood items and ready-to-eat foods, which are recognized as the fast-growing market segments. Many authors have observed the decline of "second-tier" brands, possibly as a consequence of these trends.

As old brands and products disappear from shop shelves, a second set of gatekeeping concerns addresses the appearance of new ones. Several authors have made the case that some actions of retailers hamper new product introduction. In the view of some, slotting fees (and other costs of product introduction that are passed back by retailers) are simply barriers to entry. Still, a plausible economic argument can be made that such costs are compensation to retailers for the risk taken when a new, and possibly unsuccessful, product takes shelf space from an existing product of known performance.

In many countries, policy makers resolve to support, assist, and promote small and medium-sized firms. Some food-related policies are less demanding of small firms than large ones, but many instruments of other policies (like food safety and environmental protection policies) demand high levels of capital and specialist labor, which large firms are clearly more able to provide than small ones. Where policies address the firm rather than the individual factory or site, then the case has been made that regulation encourages concentration by way of merger and acquisition. The fact that some mergers and acquisitions cross borders accentuates the concern that new entrants, particularly retailers, will bring their suppliers with them

and supplant domestic suppliers or force lower price regimes onto them.

In all countries, farmer cooperatives operate under selective policies that provide certain advantages over other agribusiness firms. Commercial advantages include allowing income to be treated as non-taxable until distributed to members and exempting transactions between suppliers and the cooperative from most taxes. In terms of competition policy, cooperatives are commonly allowed to approach monopoly status in raw material purchase, product sales, and export supplies. At the farm level, this monopoly status is implemented through supplier contracts featuring exclusivity clauses that would be illegal in other commercial settings. It should be noted that such treatment of cooperatives is not necessarily the preserve of so-called cooperative law, as many countries featuring a powerful cooperative movement lack any such a law. In such cases the laws governing commerce can accommodate the cooperative business model.

The role played by food processing and other agribusiness in rural society is an area of current research. There is a widespread belief that agribusiness is a significant employer in rural areas and a means of retaining added value in the region in which it is added. Concentration means that fewer firms are making fewer decisions about where to locate, so that much of relevant rural development policy is now concerned with presenting and promoting potential locations to agribusiness firms. In turn, this effort to promote location of agribusinesses in certain areas interfaces with policies such as transport and local taxation (which might encourage location) and preservation of rural landscapes, residents' protection from smells and noise, and heavy transport bans (which are designed for the opposite effect).

Protection of the countryside from retail greenfield development finds some common cause with small business owners in the "high streets" of towns and small cities. Retail facilities outside small towns take business, and businesses, away from these traditional locations. Where powerful retail firms have already purchased suitable land areas, then zoning and municipal planning responses may (1) be too late and (2) support the implied market power by restricting other firms' location options.

Policy Issues Surrounding Arla Foods

Arla Foods operates as a near monopoly, and a near monopsony, in Denmark and Sweden and maintains a dominant position in Britain. It has achieved this position through a process of mergers among cooperatives (in the Scandinavian countries) and joint ventures, partnerships, and mergers with other organizations elsewhere. Competition authorities have, at various stages in Arla's development, reviewed these various mergers, partnerships, and acquisitions to ensure that society's best interests were being preserved. In practice this oversight has involved examining merger plans and requiring certain actions of the parties to the merger that would maintain competition.

Because Arla is a cooperative and is, to some extent, vertically integrated, some of the supplier-buyer policy issues do not arise. A cooperative is required, however, to operate according to its constitution, which usually means farmer-member governance and influence over strategy, as well as generation of benefits to member-suppliers. Some Arla members have brought actions against Arla concerning its entry fees (which are now discontinued). The policy issue is whether or not Arla employs its near monopsony status to extract higher entry fees than would be possible were a number of competing buyers of milk available.

Close associations with a supplier of auxiliary services (packaging) have also come under scrutiny. The policy issue is the extent to which Arla's ownership and control of dominant auxiliary firms prevent other firms from accessing similar products.

Arla is reported to have been found guilty of imposing exclusivity on a retail customer, at the expense of a rival supplier. Here, the policy issue is that the consumer's interest is best served by having products from numerous dairy processors on the shelves of as many retail shops as possible. Arla's actions not only prevented that outcome, but also deprived a competitor of a market for its products, thus inflicting financial damage on its farmer-suppliers.

It is notable that Arla produces own-label branded products for retail customers—particularly in the United Kingdom—alongside its own heavily brand-oriented marketing activities. This fact suggests that

Arla exerts limited market power over retailers, despite its substantial market share.

Stakeholders

In the context of concentration in the food industry, stakeholders obviously include the members of the food marketing chain, consumers, and taxpayers, who fund and benefit from the regulatory process. Within the food marketing chain, several spectra of interests exist that span ownership (as opposed to employment), sentiment, tradition, and ethics.

Less obvious connections extend to rural residents, users of shared resources (such as roads and water supplies), and pressure groups with a single agenda (such as anti-genetic modification or pro-organic) or multiple ones (such as quality of rural life or various animal welfare concerns).

A number of stakeholders are associated with Arla Foods. Consumers in many countries are stakeholders in any change in Arla Foods' competitive position. This situation particularly applies to Denmark and Sweden, where few alternatives to Arla's products exist; the position in the United Kingdom is somewhat less extreme.

Scandinavian dairy farmers are stakeholders in Arla's development. Farmers within Arla have a financial stake in Arla's profitability, no matter what means are used to bring it about. Arla's existing members also have a stake in defending their benefits, so that if volumes of sales were static, they would have an incentive to prevent other farmers from joining. Farmers who are not suppliers to Arla have a stake in maintaining competition because they require continued access to processing firms and to retail buyers of processed products. Farmers wishing to join Arla have a stake in ensuring that no barriers to entry exist.

Farmers in foreign countries have seen their own dairy-processing operations (whether cooperative or private) face competition from Arla, with the likely consequence of damage to milk prices. As one consequence, local dairy processing firms may be forced out of production of the most profitable dairy products and left with less lucrative alternatives.

Retail buyers of dairy products have a stake in secure access to high-quality products at competitive prices. In addition, retailers would prefer to offer consumers a choice from their shelves.

Rural communities are stakeholders in agro-industrial change. Small, independent processing firms (including cooperatives) provide different kinds of employment and economic contributions than do large, vertically integrated organizations such as Arla. Given that Arla has supplanted almost all small dairy-processing plants in Denmark, that country's rural communities have had to adjust, and that adjustment has produced winners and losers.

Policy Options

The most obvious policy option available to regulators of Arla is scrutiny, entailing monitoring of

- mergers, takeovers, acquisitions, and joint ventures;
- pricing;
- complaints and legal actions; and
- adherence to the cooperative constitution and relevant laws.

In dealing with such a persistent, dominant market force, policy makers might move to limit Arla's market share in the event of any new proposed mergers and acquisitions. Such a step would require legislators to define a maximum allowable market share and then defend that definition. Several complicating factors would also arise: Should market share be defined over the EU as a whole (it is politically defined as a "single market") or just for the three markets in which dominance is clear? Should market share be defined over all dairy products or just certain ones?

If Arla manages to increase its market share by increasing sales, without mergers and acquisitions, regulators have few options. An alternative, however, lies in the regulation of retailers. Retailers are already prohibited from exercising exclusivity in sourcing, and this prohibition may provide an opportunity to constrain Arla's market share, particularly if Arla is prohibited from acquiring competing firms. Contracts and other transactions might be regulated to prohibit product-tying

arrangements (requiring supply of one product with another), exclusivity of infrastructure and hardware, collaborative pricing arrangements, and other issues between Arla and its retail customers. Such policies may prove difficult to implement because compliance is difficult to ensure.

In the past, large, vertically integrated cooperatives have justified their size and influence as a counterweight to large and powerful retailers. Any policy steps taken to reduce Arla's ability to act as a counterweight to retailers would (1) face some well-founded and popular opposition and (2) require compensation of farmers that might exceed benefits to consumers.

Another approach may be to prohibit Arla from operating in markets related to the ones in which it has achieved dominance. Arla might be excluded, for example, from markets for protein fractions, ice cream, or milk powder. Such an approach would require sales of Arla's by-products to competing firms, which would then be able to maintain a presence in the dairy industry in order to challenge Arla in the future.

In an extreme response, policy makers might require Arla to be broken up into separate and competing firms. This approach would be a technical challenge and would need to be formulated and implemented in a manner that did not disrupt supplies from farms and processors. The breakup might be regional, vertical (for example, involving separation of stages of processing and distribution), or market-by-market in a product sense.

Arla's dominance in Denmark and Sweden is strongest as a buyer of raw milk: it is a virtual monopsonist. This outcome has largely arisen, and been tolerated, because Arla is a cooperative. Future policy will need to examine whether cooperatives should be allowed to become monopsonists (which then eases their progress toward monopoly). At present, policy treatment of cooperatives is poorly equipped to deal with such problems: Denmark has no cooperative law as such but makes provisions for cooperatives through their adherence to aspects of their own constitutions. Policies could, however, restrict the length of Arla's contracts with suppliers or remove its exclusivity with individual farmers. The EU has not yet developed a policy or legal construct for dealing with market dominance by cooperatives. Most

arguments in favor of cooperatives as defenders of farmers break down when the cooperative markets its products across borders to the detriment of foreign farmers.

More general policy options are also available to encourage rivalry with Arla. These options include supporting or subsidizing innovation, local employment, product promotion and market research and investing in value-adding activities. These instruments largely fall within regional development policy or support to science and industrial development. It should be noted that Arla cannot generally be excluded from taking advantage of such incentives, which may have the effect of reinforcing its dominant position. A possible exception is in policies targeted at small and medium-sized enterprises or those located in specified locations. Such an exception would be effective in countering Arla's dominance only where (1) a subsidiary of Arla was not eligible and (2) the eligible firms had sufficient size to take advantage of the opportunities offered on a national scale.

Governments are significant buyers of dairy products through their ownership of hospitals, schools, prisons, and other state facilities. Governments could encourage competitors to Arla by awarding supply contracts to them instead of to Arla. Implementing such a policy would require support from local authorities, many of whom operate competitive tendering arrangements and would be loathe to favor a high-priced bid over a low one. In rural areas, local state facilities like hospitals and schools serve the families of farmers who may be suppliers to Arla and so object to its exclusion from their local market. In the long run, such farmers might be viewed as potential sources of milk for competing firms, but defections from Arla are not likely to occur in regional blocs that would provide a competitor with easy market entry.

Assignment

Your assignment is to suggest policy recommendations for the various levels of government (local Danish and British governments, national Danish and Swedish governments, and the European Commission) regarding the future of Arla and other large agribusiness firms. Assess the extent of

market power exercised by Arla, and decide which stakeholders are likely to be affected by Arla's exercise of market power in which ways.

Additional Readings

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